# KNOWLEDGE OF HEALTH PRACTICE AMONG SANITARY WORKERS OF MUNICIPAL CORPORATION GWALIOR – A SURVEY


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## DEPARTMENT OF HEALTH SCIENCES

## CERTIFICATE

I hereby declare that the synopsis **"KNOWLEDGE OF HEALTH PRACTICE AMONG SANITARY WORKERS OF MUNICIPAL CORPORATION GWALIOR – A SURVEY"** being submitted in partial fulfillment of the requirement for the degree of Doctor of Philosophy in **PHYSICAL EDUCATION** under the **"DEPARTMENT OF HEALTH SCIENCES"**, Lakshmibai National Institute of Physical Education (LNIPE), Gwalior, Madhya Pradesh, India during the academic year 2021-2022.

It is a bonafide record of original work carried out under the supervision of **Dr. Pramod Kumar Das** and has not been submitted in full or part to any other university or institute for a degree or diploma.

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# ABSTRACT

The proposed study aims to assess the knowledge of health practices among sanitary workers of the Municipal Corporation Gwalior through a structured survey. Sanitary workers are routinely exposed to unhygienic and hazardous working conditions, making it essential to evaluate their awareness and practices related to health and safety. The study will focus on four key aspects: health, hygiene, addiction, and protection, which are critical to their overall well-being.

A total of 330 sanitary workers, aged 23 to 62 years, will be selected from all 66 wards of Gwalior using a structured questionnaire developed in consultation with experts. The questionnaire will be administered in Hindi for better understanding, and responses will be scored to calculate a Health Knowledge Score. Data will be analyzed using descriptive statistics, percentage analysis, and Chi-square tests to determine associations between demographic variables and health knowledge.

The expected outcomes of the study include identifying gaps in awareness, highlighting behavioral patterns, and providing evidence-based recommendations for health education and policy initiatives. Ultimately, the research seeks to contribute to improving the health, safety, and quality of life of sanitary workers in Gwalior.

**Key Words**: Sanitary Workers, Health Practice, Survey, Municipal Corporation Gwalior, Health Awareness, Addiction, Protection, Public Health, Health Education.

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# CHAPTER – I

# INTRODUCTION

Health is a man's normal conditions, and his birthright. It is the result of living in accordance with the natural laws pertaining to the body, mind and environment. These laws relate to fresh air and sunlight, balanced diet, regular exercise, rest, relaxation and sleep, cleanliness, internal and external elimination, right attitudes of mind, good habits and good pattern of living. Modern medical science is often accused for its preoccupation with the study of diseases, and neglect of the study of health. It has encouraged people to rely on drugs and tonics for the maintenance of health than teaching them the rational way to health. Our hospitals are indeed flooded with the sick, but there are no institutions which show people how to prevent diseases and promote health. In fact, our ignorance about health continues to be profound. Health is often taken for granted and its value is not fully appreciated until it is lost (Park, 1983).

Health in general may be defined as the quality of life that enables the individual to live most and serve best. It is that state in which the mental and physical activities of the body are adjusted satisfactorily to the environment. It can be imperiled either by doing or by neglecting to do certain things. Health is capable of enrichment or deterioration, that life at its best is a more realistic concept for all persons, than the mere avoidance of disease and that the proper goal of all health teaching is the finest kind of individual living. Personal hygiene is not only concern with matters pertaining to health of a person but also includes personal factors conductive to good health. They are habits constitution, heredity, idiosyncrasy, temperament, cleanliness, sleep, clothing, exercising, sex etc. The main objective of personal hygiene is to maintain a high standard of health (Bhave, 1967).

There is no need to enlarge the importance of health. What is disappointing is that people do not look upon health as the work of their own hands but something God given. Here today, snatched away tomorrow, no man can himself gain or preserve his health. Medical science can only help him it cannot serve up health to him on a silver salver. It simply treats illness when health has already been lost. But one cannot put one's trust solely

in medicine without an effort on the part of the patient. Without his will power health can neither be restored nor preserved. What is health and what is illness sounds a silly question. Everyone can feel which is which. But man is so made that a disruption of normal functioning of the body and its reflection in his mind is far from adequate. People can and must be made healthy. Illness is not something to which man is deemed by virtue of his biological essence. It is not an inevitable concomitant of scientific and technological programme and increased prosperity, as some fatalists assert. But one should think is the recipe for victory is more hospitals etc.

Man bears the responsibility for his own health. He himself can restore and preserve it by his own efforts, in some cases quite significant efforts. But man's irresponsible attitude to his own health is encouraged by an apparently good cause. With the spread of new medicines and in general the advances made in medical sciences people have developed an unfounded faith in the magical omnipotence of medicine and so pay no attention to the need. Above all strengthen their own physical and especially physiological resistance to disease (N. Amosa, 1971).

Health is prime and foremost need of life. One has to cope up in his life for healthy living. It is said, "Prevention is better than cure" and for that knowledge of health education is essential. Education only does not mean just to improve some knowledge on part of people. A man should have all-round fitness. As said by W.H.O, "Health is state of complete physical, mental and social well-being and not merely an absence of disease or infirmity". According to this definition one should try to attain the highest possible fitness level (Shinha, 1972).

In considering community factors that influence the health of the people, the general public tends to think largely in terms of population figures. The size of a city or the number of people living in a community is a significant factor in dealing with community health standpoint. A number of community environmental factors must be recognized in dealing with community health problems. The physical environment, geography, climate, neighbourhood and industrial conditions all must be considered when appraising the health of a community. Some of these factors will have a minor effect on health, while others may virtually identify the particular health problems peculiar to the community (Anderson, 1976).

The word hygiene is derived from the Greek word 'Hygeia' the goddess of health. Hygiene is defined as the science and art of preserving and improving health. Hygiene deals both with an individual and a community as a whole. Personal hygiene is the term used for improvement of hygiene of an individual or a person. Similarly other terms like mess hygiene, milk hygiene, hygiene of feeling, hygiene of clothes, and hygiene of infant feeding etc. are self explanatory (Bedi, 1980).

The term 'personal hygiene' is often confused and equated with personal cleanliness. Cleanliness is certainly a part of personal hygiene, but the scope of personal hygiene is much wider. It is the science of preserving and promoting health mainly through the active efforts of an individual. It is practiced through sanitary habits and healthy way of life. Personal hygiene is primarily within the scope of an individual (Bhave, 1967).

Health practices have been with us a long time. They are as old as yesterday, as contemporary as today, as modern as tomorrow. Health practices have ever been the life stream of a nation's progress, Good health practices are the life generating forces for the advancement of civilization. A nation stands firm, if its people follow the desirable health practices in their day to day life. Since the school going children and youth i.e. college students happen to be the mature citizens of the nation, they certainly need to be educated the basic hygienic practices for their health and happy life in particular and for a healthy nation in general.

On the other hand poor hygienic practices account for a large number of diseases and deficiencies. Health practices in the life of an individual or in community are expressions of a number of factors including habits and attitudes as well as knowledge. In everyday living most people fall below what they know to be the best in hygiene and health practices (Chenoweth, 1949).

All practices in life may be regarded as having hazard and safety implications. Yet certain practices in each person's mode of life are of such great significance as to command special analysis and evaluation in terms of the best accepted safety practices and he subjected to frequent evaluation and overhauling. The demands of changing life situations require constant modification of habits. New experienced should be approached with considerable

critical analysis and studied adjustment in the light of safety requirements. Intense effort is required to establish safe personal and community practices (Anderson, 1967).

The country, since its independence has made remarkable progress in almost all fields, which includes Green Revolution, White Revolution and information technology revolution, only to name a few and thereby improving the economic conditions of many segments of the population. However, there is one community which has largely remained untouched by such enviable progress is the community of municipal sanitary workers (Safai Karamcharis). Totally cut-off from the mainstream of progress and immersed in ignorance and poverty, they are still subjected to the worst kind of oppression, discrimination and indignity and they are still treated as the lowliest of all.

The sanitary workers are responsible for keeping the environment clean and contribute to the economic development of the country, though they are the most neglected one in the eyes of the civilized society. They are at the lowest rank when it comes to income, education, health, sanitation and other parameters of Human Development Index (HDI). At a time when growth is taking place in every sector, there are several communities which are left far behind and are living in the most deplorable inhuman conditions of economic backwardness and social discrimination, which especially includes the sanitary workers (Srivastava, 1997).

The application of health knowledge significantly influences personal health outcomes. For example, knowledge of the detrimental effects of smoking can lead individuals to quit, which has been shown to reduce the risk of developing lung cancer and other respiratory diseases by over 50% in former smokers (Johnson & Reynolds, 2021). Similarly, knowledge about the benefits of regular physical activity can encourage individuals to engage in exercise, which is linked to a reduced risk of chronic diseases such as obesity, hypertension, and type 2 diabetes (White & Kline, 2020). Studies have shown that individuals who engage in regular physical activity reduce their risk of cardiovascular disease by 35%, showcasing the critical role health practices play in personal health outcomes (Katzmarzyk et al., 2019).

Healthy populations impose fewer costs on healthcare systems and reduce economic burdens on governments and individuals. Preventive health measures stemming from robust health knowledge can mitigate the need for expensive treatments and interventions (Davies & Taylor, 2020). For example, studies have shown that for every dollar spent on preventive health programs, the savings in healthcare costs can range from $5 to $10 due to the reduction in the need for emergency care and long-term treatments (Lee & Khan, 2021). Preventive measures, such as routine health screenings, vaccinations, and health education campaigns, reduce the prevalence of chronic diseases and prevent costly medical interventions.

There is a strong correlation between health education, academic achievement, and workforce productivity. Healthier individuals are more likely to succeed academically, as good health supports cognitive function, attendance, and overall academic performance (Nguyen et al., 2022). In contrast, health disparities, such as malnutrition and lack of access to health care, often impede academic achievement, particularly in low-income settings. Studies have shown that children with better health status perform better academically and are more likely to complete their education (Simmons & Patel, 2021).

## STATEMENT OF THE PROBLEM

The proposed study will aim to examine the level of knowledge regarding health practices among sanitary workers employed by the Municipal Corporation of Gwalior. Given their daily exposure to waste, drainage, and unsanitary environments, these workers face significant health risks. Therefore, assessing their health awareness will be crucial in identifying gaps and implementing measures to prevent occupational health issues.

## OBJECTIVES OF THE STUDY

Sanitary workers often occupy the lowest tier of the occupational and social structure and are typically underserved in terms of health assessments and support. The present study will aim to:

- Evaluate the health and hygiene awareness among the sample respondents.
- Identify the association of health knowledge across different demographic factors
- Investigate demographic characteristics, awareness levels, protective behaviors, and health-related habits among the sanitary workers.

## HYPOTHESIS

On the basis of literature reviewed, experts' opinion, observation and experience of research scholar and objectives of the study-

It will be hypothesized that the majority of sanitary workers in the Municipal Corporation of Gwalior may possess limited knowledge of essential health practices.

## DELIMITATIONS OF THE STUDY

To maintain focus and manageability, the study will be delimited in the following ways:

- The scope will be limited to sanitary workers working under the Municipal Corporation of Gwalior.
- The sample will include male and female workers from all 66 municipal corporation wards.
- The age range of participants will be limited to 23–62 years.

- The study will specifically examine knowledge related to health practices, such as hygiene, personal care, protection from occupational hazards, and addiction-related behaviors.

## LIMITATIONS OF THE STUDY

The study will be based on a self-administered questionnaire, which may include certain limitations:

- Participants may respond based on perceived expectations rather than their actual practices or feelings, potentially introducing response bias.
- Emotional or subjective reactions to certain questions may affect the accuracy of responses.

## SIGNIFICANCE OF THE STUDY

This research will carry significant practical and social value:

- It will help sanitary workers enhance their awareness of health practices, leading to better personal and workplace hygiene.
- The findings will support the Municipal Corporation of Gwalior in designing effective policies and training programs to promote health among its workforce.
- The study may provide crucial insights for protecting workers during health crises such as pandemics.
- It will highlight the challenges, habits, and attitudes of sanitary workers concerning health, paving the way for targeted interventions.
- Overall, the research will contribute to improved health outcomes and promote the dignity and welfare of an often-neglected section of the urban workforce.

# CHAPTER – II

# REVIEW OF RELATED LITERATURE

**(S.VEERAMANI, 2006)**, has conducted the study on the living conditions and working environment of municipal sanitary workers in Tiruvallur district Tamil Nadu. The analysis of primary data indicates that overall, 54.8 per cent of the respondents belong to the age group of above 40 years, which is 55.1 per cent among the male workers and 54.4 per cent in the case of the female respondents. Hence, the proportion of young workers is marginally less in this occupation. The general level of education is quite low among the respondents, since none of them is literate above the school level, while the proportion of illiteracy is 23.2 per cent, which is especially higher in a district like Tiruvallur, where the overall level of illiteracy is only 14 per cent as per the 2011 Census data. The literacy level is particularly less in the case of the female workers, where none of them is literate above the 8th standard and 38.4 per cent is illiterate. This brings out the fact that the spread of education is quite less among sanitary workers. The age level-wise educational levels of the sample respondents suggest that the two factors are inversely related, since the literacy level is higher among the younger respondents and vice versa. For instance, the proportion of illiteracy is 5.3 per cent in the case of those who are upto 35 years of age, which goes up to 19.7 per cent, 28.9 per cent and 46.1 per cent in the successive higher age groups, while all those who are literate beyond 10th standard come under the age group of less than 35 years.

**(Tiwari, 2008),** has done study on the working conditions of sanitary workers. He found that the working conditions for sanitary workers remained virtually unchanged for over a century. Apart from the social atrocities that these workers face, they are exposed to certain health problems by virtue of their occupation. These health hazards include exposure to harmful gases such as methane and hydrogen sulfide, cardiovascular degeneration, musculoskeletal disorders like osteoarthritic changes and intervertebral disc herniation, infections like hepatitis, leptospirosis and helicobacter, skin problems, respiratory system problems and altered pulmonary function parameters. This can be prevented through engineering, medical and legislative measures. While the engineering measures will help in protecting against exposures, the medical measures will help in early detection of the effects

of these exposures. This can be partly achieved by developing an effective occupational health service for this group of workers. Also, regular awareness programs should be conducted to impart education regarding safer work procedures and use of personal protective devices.

**(Göktalay et al., 2013),** has done a health survey on sanitary workers that has been applied to evaluate the respiratory symptoms, respiration functions and smoking habits of the workers of Izmir Konak Municipality turkey whom have been reported to have a high rate of smoking habit and be affected by the external air pollution due to their being working in the field by the Municipality's doctor. Questionnaire that are composed of the topics of work anamnesis, environmental anamnesis, curriculum vitae, symptoms (coughing, sputum, wheezing, hemoptysis) and smoking have been executed to 301 workers.

Sputum in the morning, wheezing and morning cough have been the most frequently observed complaints. Sanitary workers have reported sputum in the morning more while maintenance shop workers have reported wheezing more. No significance has been observed while the workers are evaluated one by one regarding to their work groups. No significant difference was identified between the addiction of smoking and nicotine addiction or pulmonary function test and chest X-rays but active smoking was much more seen in drivers. It becomes significant to trace and lead the workers in order to obtain their lung health protection in long term. Informing and influencing the workers about the harms of smoking and the ways to quit has been the most considerable acquisition of the study.

**(Patil & Kamble, 2017),** conducted study on 198 sanitary workers work in Chandrapur Municipal Corporation, out of which 20 workers (10% of the population) was selected as a sample size (all male workers). The study was carried out from November 2015 to January 2016. Occupational health hazards of these workers were analyzed through questionnaire survey and Peak Expiratory Flow Rate (PEFR) analysis. The results of the study showed that, these workers were exposed to a number of environmental and occupational hazards leading to musculoskeletal disorders (85%), exposure to harmful gases (65%), respiratory problems (45%), headache (40%), dermatological problem (35%), gastrointestinal (10%) and leptospirosis (10%) during work. It was further observed that the workers were suffering from cough and cold (90%), skin problems (50%), allergies (15%),

malaria and typhoid (15%), bronchitis lung and asthmatic problems (10%) and hearing disorder (5%) etc. after completion of work. The PEFR values were lower in exposed workers. Reduction in PEFR values was directly proportional with exposure duration. To reduce occupational health hazards, workers must be made alert and aware of potential health risk arising from their work. Reduction in exposure and use of personal protective equipments such as face mask, gloves, gum boots, caps, apron etc. should be encouraged.

**(Nagarajan, 2019)** conducted a questionnaire study that assessed the KAP of sanitary workers on oral hygiene. Questionnaire is distributed among 72 sanitary workers from Saveetha Dental College and Sri Ramachandra Medical College, Chennai. Their responses were recorded and analyzed, and their KAP level was evaluated. Only 13% of the sanitary workers surveyed have had formal education. 55% of the uneducated sanitary workers believe that using neem sticks is the ideal method to clean teeth. 50% of the sanitary workers are slaves to tobacco addiction. 50% of them who do not visit the dentist blame their jobs to be the reason for it. The overall KAP level of the sanitary workers surveyed was found to be 52.83%. The KAP level of oral hygiene of these sanitary workers is a reflection of their educational status and inability to afford dental consultations due to their job scenarios. Free dental camps and distribution of oral hygiene products can, therefore, considerably better the oral hygiene status of sanitary workers.

# CHAPTER – III

# PROCEDURE AND METHODOLOGY

This section will describe the procedure followed for the selection of subjects, data collection, development and administration of the questionnaire, and the statistical techniques to be used for analysis.

## SELECTION OF SUBJECTS

A total of 330 sanitary workers from all 66 wards of the Municipal Corporation Gwalior, aged 23 to 62 years, will be selected for the study. Participants will be chosen by cross sectional survey design and as per their ability to understand and respond appropriately to a structured questionnaire based on their work experience and familiarity with health-related issues.

## DEVELOPMENT AND MODIFICATION OF THE QUESTIONNAIRE

As there were no standardized questionnaire is available to assess health practices of sanitary workers, so a structured questionnaire will be developed collaboratively by the researcher, supervisor, and health experts. The aim will be to ensure that the language is clear, simple, and free from ambiguity, allowing participants to respond easily and accurately. The development process will include the following stages:

### PLANNING

The initial phase will involve identifying the key research objectives and the target population. Consultations will be held with experts and faculty members to align the questionnaire with the overall research goals. Revisions will be made based on expert recommendations before finalizing the draft.

### PREPARATION OF PRELIMINARY DRAFT

An initial draft of the questionnaire will be created, including multiple-choice and Yes/No type questions. These will address various demographic variables and different aspects of health practices like health, hygiene, addiction, protection aspect relevant to sanitary workers.

### EVALUATION OF PRELIMINARY DRAFT

The preliminary version will be tested with a small focus group to identify unclear or misleading items. Feedback from this phase will be used to improve question clarity, refine response options, and adjust the sequence of questions.

### FINALIZATION OF THE QUESTIONNAIRE

Based on the suggestions received, the final version of the questionnaire will be constructed. A pilot test will be conducted, and any final refinements will be made before the questionnaire is distributed to the full sample.

## SCORE CALCULATION

To assess the level of health knowledge among sanitary workers, a Health Knowledge Score will be calculated based on their responses to the questionnaire. Each will be scored as 1 point for a correct or desirable health practice and 0 points for an incorrect or undesirable health practice. The total score will reflect the individual or respondent's overall knowledge of health practices.

## ADMINISTRATION OF QUESTIONNAIRE

The questionnaire will be administered to 330 sanitary workers across all 66 wards of the Municipal Corporation Gwalior by the researcher. For better understanding, it will be translated into Hindi. Participants will be instructed to respond individually and honestly, without discussing with others. They will be informed that their responses will be kept confidential and used solely for the purpose of this research.

## STATISTICAL PROCEDURE

The data will be analyzed in two sections. Section A will include percentage analysis of demographic variables, presented through pie charts. Section B will involve Chi-square tests to examine the association between demographic factors and health knowledge scores at a 0.05 level of significance, using contingency tables and bar graphs.

Descriptive statistics will also be used to summarize the data and highlight key patterns in respondent characteristics.

## EXPECTED OUTCOME:

The study is expected to provide valuable insights into the current level of health knowledge and practices among sanitary workers of the Municipal Corporation Gwalior. It will help identify key gaps in awareness, highlight the influence of demographic factors, and uncover barriers to adopting healthy behaviors. The findings may guide the development of targeted health education programs and policies, ultimately contributing to improved health, safety, and well-being of the sanitary workforce.

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